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 $\textbf{(54) Title:} \ \textbf{METHOD} \ \textbf{AND} \ \textbf{APPARATUS} \ \textbf{FOR} \ \textbf{AUTOMATIC} \ \textbf{DETECTION} \ \textbf{AND} \ \textbf{IDENTIFICATION} \ \textbf{OF} \ \textbf{BROADCAST} \ \textbf{AUDIO} \ \textbf{OR} \ \textbf{VIDEO} \ \textbf{PROGRAMMING} \ \textbf{SIGNAL}$

(57) Abstract: This invention relates to the automatic detection and identification of broadcast programming, for example music, speech or video that is broadcast over radio, television, the Internet or other media. "Broadcast" means any readily available source of content, whether now known or hereafter devised, including streaming, peer to peer delivery or detection of network traffic. A known program is registered by deriving a numerical code for each of many short time segments during the program and storing the sequence of numerical codes and a reference to the identity of the program. Detection and identification of an input signal occurs by similarly extracting the numerical codes from it and comparing the sequence of detected numerical codes against the stored sequences. Testing criteria is applied that optimizes the rate of correct detections of the registered programming. Other optimizations in the comparison process are used to expedite the comparison process.

